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DIVISION OF ONL GAS AND MINING

October 9, 2002

Utah Coal Program
Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
P.O. Box 145801
Salt Lake City, Utah 84114-5801

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Subject:

Response to Deficiencies in the Des Bee Dove Mine, Phase 2 Reclamation Plan, PacifiCorp, Des Bee Dove Mine, C015/017-AM01D-1, Emery County, Utah

PacifiCorp, by and through its wholly-owned subsidiary, Energy West Mining Company ("Energy West") as mine operator, hereby submits responses to the deficiencies of the Des Bee Dove Mine Phase 2, Reclamation Plan. The original application was submitted October 15, 2001. Energy West received the second round of deficiencies in the document dated on August 15, 2002.

The attached document attempts to answer the deficiencies in the order they were received. The Division's findings will be first listed by regulation and explanation. Energy West will follow by a response in *italics*.

Accompanying this letter are seven (7) redline/strikeout copies to satisfy the deficiencies. If you have any questions or concerns regarding this amendment, please contact me at 435-687-4720 or Dennis Oakley at 435-687-4825.

Sincerely,

Charles A. Semborski

Permitting/Geology Supervisor

Enclosure:

Response to Technical Analysis Deficiencies

C1/C2 Forms for placement into Phase 2, Reclamation Plan

Attachment 1: Phase 2 Reclamation Photos

Cc:

Carl Pollastro (EWMC, w/o encl.)

Scott Child (IMC, w/o encl.)

File

Huntington Office: (435) 687-9821 Fax (435) 687-2695 Purchasing Fax (435) 687-9092 Deer Creek Mine: (435) 687-2317 Fax (435) 687-2285 Trail Mountain Mine: (435) 748-2140 Fax (435) 748-5125

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The following responses to deficiencies are formatted as found in the technical analysis document. They are broken down into logical section headings similar to the R645 regulations. In each section, the regulation number along with the associated deficiency is follow by the permittee's italicized response.

GENERAL CONTENTS

Permit Application Format and Contents

R645-301-121.200, The title page for Appendix A must be corrected to reflect that the photos were taken during reclamation.

The title page for Appendix A has been changed from "Pre-Reclamation Photo's" to "Reclamation Photo's"

R645-301-121.200, The permittee must consistently identify the location of the Phase 2 Reclamation information as Appendix XVI, not XV. See the front cover of the binder and the laminated title page in the submittal.

To keep Phase 1 and Phase 2 Reclamation Plans as consecutive plans, PacifiCorp requests transferring the current Appendix XV (Sediment Pond Access Road Plans and Written Text) to another appendix. Upon approval of Phase 2, PacifiCorp will submit a separate amendment relocating the conflicting appendices. All covers have been changed to read "Appendix XV" not "Appendix XVI".

Maps and Plans

R645-301-130, The cross-section -1+00 for drawing 200-1 must be included with the submittal.

The cross-section -1+00 for drawing 200-1 was inadvertently omitted. It is now included on the drawing.

ENVIRONMENTAL RESOURCE INFORMATION

Historic and Archeological Resource Information

R645-301-411.140, The application must address the potential for this site to be eligible to the National Register of Historic Places.

The term "historic" has been changed to "dated" when referencing structures that would remain after Phase 2 reclamation. Page 2 in R645-301-400: Land Use has been included for Division review.

Land-use Resource Information

R645-301-411, Please add a description of the use of the Church Mine trail by locals to reenact the settlement of Huntington.

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A brief description of this type of use is described under Historic and Archeological Resource (R645-301-411.140).

OPERATION PLAN

Topsoil and Subsoil

R645-301-232.200, (1) The submittal must describe separate handling (removal & storage) of the surface three feet of bathhouse outslope soils. (2) The submittal must indicate the Permittee's intention to utilize the undisturbed "island" south of the Tipple yard for substitute topsoil as a last resort after other alternatives have been exhausted and after consulting with the Division and obtaining the Division's concurrence. (3) The Permittee must evaluate increasing the area of substitute topsoil salvage from the southern portion of the bathhouse outslope.

- (1) R645-301-200: Soils, page 14 has been amended to describe a separate handling and storage of the top three feet of the bathhouse pad outslope material.
- (2) The permittee has conducted several scenarios to find the best topography to accomplish AOC and slope stability. Reviewing the cross-sections 9+00 through 11+00 on map 200-1 shows that the cut wall is being eliminated completely achieving AOC. Slope stability is maintained since the near vertical cuts are nearly eliminated.

If not eliminated and the "island" is left in place, the road cuts in this area would be regraded to a slope not to exceed 2:1. As these cuts will not be maintained after reclamation, the vertical cuts would potentially become unstable and fail. The exposed vertical cut on the bathhouse access road would be approximately 30 feet high by 150 feet long. An exposed cut would also be left on the Deseret portal access road. There are many potential safety issues associated with unstable cuts (refer to Attachment 1 - Phase 2 Reclamation photos).

(3) As mentioned in the TA, the southern portion of the bathhouse pad could be utilized. However, the amount of material would be an insignificant amount. If conditions permit, more material may be taken from the trenches by excavating deeper. Every foot deeper would gain an extra 417 yds³ of substitute topsoil. There is a sandstone bench, however, that would restrict the depth of excavation. Field decisions would need to be made since the materials in the subsurface is unknown.

R645-301-242.100, The Division recognizes the need for flexibility between the submittal and field work, therefore, the submittal must include a commitment that Permittee will keep a weekly written accounting of the volume of substitute topsoil separated and stored; and the volume of topsoil redistributed at the site. The weekly accounting must be available on site for review by DOGM staff.

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A commitment to keep a weekly accounting of the volume of substitute topsoil separated and redistributed has been included under R645-301-200: Soils, Soil Management on page 12.

R645-301-242.100, **-242.130**, The Permittee should include in Section 500 Table 1, Procedural Steps of Reclamation Timetable instruction for the contractor to handle soils only when they are in loose or friable condition or when the moisture content is an optimal 10 - 15%. Generally, two rules apply: a) If the soil sticks to the equipment, wait until the soil has dried to a friable state. b) If the soil is too dry and hard to handle, resembling flour, add water until the soil is wetted to a loose, friable condition.

A commitment is included in Table 1, Item #4 for handling soils as required by R645-301-242.100 through R645-301-242.130.

Spoil and Waste Materials

R645-301-553.260, **-252**, The application must include a commitment to cover coal processing waste with four feet of clean fill and indicate a method by which the depth of clean fill will be monitored over coal processing waste (coal spills) and underground development waste during grading.

The regulation cited by the Division refers to the disposal facility for coal mine wastes or underground development wastes. The area of the Des Bee Dove mine site is not the approved disposal facility where this material will be placed. The approved site is located approximately one mile south of the Cottonwood/Wilberg Mine and will be backfilled and graded to the requirements of 553.250.

The entire Phase 2 area consists of coal spills and disposed underground development waste mixed with native soil material which were deposited prior to SMCRA. Committing to covering these wastes with four feet of clean fill would be counterproductive. There is not enough clean fill material on-site to accomplish this. The buried materials referenced by the Division is of lesser quality, however, it is not acid and/or toxic forming. It has been demonstrated on the outslope of the yard pad that the waste materials can support a good vegetative stand. The Division wanted the permittee to segregate the top 18 to 24" of this waste material (as required by the existing permit) for use as a substitute topsoil material. The Division also cited an NOV to the permittee when this did not occur.

It is the intention of the permittee to use this mixed waste material as fill and utilize better quality soil materials as a substitute topsoil covering of at least 6" in depth as outlined in R645-301-200 and R645-301-500. The permittee will commit to sampling the near surface waste materials in the bathhouse area for the parameters outlined in the Divisions <u>Guidelines for Management of Topsoil and Overburden for Underground and Surface Coal Mining</u> (Leatherwood and Duce, 1988). If the soil suitability criteria revel an unacceptable evaluation, than the material will be buried with at least 4 feet of non-toxic/non-acid forming material. See R645-301-200: Soils, Substitute Topsoil Distribution for the above stated changes.

RECLAMATION PLAN

Protection of Fish, Wildlife, and Related Environmental Values

R645-301-358, The Operator must commit to the restrictions concerning the eagle protection as stated above.

The permittee has add text to the Biology Section (page 8) as follows:

Protection of Fish, Wildlife and Related Environmental Values (R4645-301-358)

Golden Eagle nest #952 is located within the half-mile buffer zone suggested by the US Fish and Wildlife Service. The 2002 Raptor Monitoring Program conducted in May showed the nest status as inactive. If reclamation activities are started after to the regional restriction dates February 7 through July 15, and the nest status is active, a biologist will monitor the nest. If the eagles appear to be disrupted because of construction activity, then reclamation work will be stopped until July 15 or until the young have fledged the nest. If the status of the nest becomes active after reclamation activities have begun then it is assumed that the eagles have become acclimated to the reclamation work and should not affect nest production. Work will progress without monitoring.

Hydrologic Information

R645-301-752, The Permittee needs to do the RUSLE soil-loss calculations using the laboratory soil testing results in Exhibit B of Appendix C that include the very-fine sand fraction.

Soil loss calculations using the RUSLE ver. 1.06 was conducted for the entire mine site and submitted with the Phase 1 Reclamation Plan. This plan was approved March 6, 2002 even though the very fine sand fractions were available. However, the permittee has rerun the model using an has the following results. Results for modeling without very fine sand is included for comparison.

(w/o very fine sand included)

Profile*	R	\boldsymbol{K}	LS	\boldsymbol{C}	\boldsymbol{P}	SDR	\boldsymbol{A}	SY
DBDA11D	10	0.36	19.58	0.0411	0.029	0.002	0.09	0.01
DBDA21D	10	0.36	9.72	0.0399	0.029	0.002	0.04	0
DBDA22D	10	0.361	6.90	0.0377	0.029	0.002	0.03	0
DBDA23D	10	0.36	16.80	0.0421	0.029	0.002	0.07	0
DBDA31D	10	0.36	11.07	0.0403	0.029	0.002	0.05	0
DBDA32D	10	0.36	11.92	0.0389	0.029	0.002	0.05	0

^{*} See map CS1854D for hillslope profile locations

Only two areas are applicable to Phase 2 reclamation; DBDA31D/Trench #5 and DBDA32D/Trench #6.

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(with very fine sand included)

DBDA31D 10 0.276 11.07 0.0403 0.029 0.000 0.04 0 DBDA32D 10 0.36 11.92 0.0389 0.029 0.002 0.05 0

As compared by the two tables, the difference is negligible. Therefore, since the existing approved RUSLE results error toward conservative, no change will be made to the model.

R645-301-746.120, -731.310, -731.311, The plan must include a commitment to sample the main drainage at the location of each cross section from 3+00 through 12+00 shown on Drawing #500-3. The Permittee may choose to sample the final grade at a depth below four feet before placement of Type II filter bedding or continuously during grading of the fill. Analysis will include laboratory measurement of pH, EC, SAR, acid/base accounting, Boron, and Selenium.

The permittee has conducted extensive soil sampling throughout the Des Bee Dove mine site. The sampling was performed in December 2001 by soil scientist Dan Larsen of EIS with oversite by Pricilla Burton, reclamation specialist DOGM. A total of 10 trenches were excavated with multiple soil samples taken from each trench. Trenches 4, 5, 9, and 10 should be focused on when predicting soil quality of the fill in the lower channel area.

The SAR in the four trenches ranged from 0.48 to 3.90 with a sandy loam to loam texture. Total organic carbon resulted in low percentages in trenches 4, 5, and 10, however, trench 9 showed a value of 26.1%. Total sulfur acid/base ranged from 0.00 to 11.6 t/1000t. Again the maximum value came from trench 9. Trenches 4, 5, and 10 has very low potential to leach any acid or alkaline drainage from the site or to adversely affect vegetation.

Selenium and boron were not analyzed in the sampling program, however, results from previous sampling (as mentioned in the TA) showed no elevated values. No elevated values of selenium and boron values has showed up in any soil analysis of the four Energy West mines.

With the favorable results of the sample analysis in trenches 4, 5, and 10 and the confidence the permittee has gained (through numerous analysis) that no elevated values of selenium and boron exists on site, the permittee see's no justification to sample the final grade at a depth below four feet before placement of Type II filter bedding or continuously during grading of the fill. The material of trench #9, though, will be buried in the excavated trenches on the bathhouse pad as outlined in R645-301-200: Soils.

No change in the reclamation plan will result from this deficiency.

Revegetation

R645-301-340, Methods to effectivity incorporate mulch, prepare a seed bed and revegetate on a 1½h:1v slope must be described.

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The methods are identical as that of a slope of 2:1. Pocking, mulching, fertilizing, and seeding are currently described on page 4 of the Biology Section in the Phase 2 reclamation plan.

R645-301-353, The Tipple and Deseret pads must have greater amounts of substitute topsoil applied then the current six inches or the number of transplants in this area increased to 750 per acre or other methods described to assure revegetation success.

Table 3-1 has been changed to show the following:

**Augment with transplants to provide visual attributes (6" substitute topsoil; total 750/acre), > 6", total 200/acre)

APPLICATION FOR COAL PERMIT PROCESING

Permit Change New Permit Renewal Exploration Bond Release Transfer Transfer								
Permittee: PacifiCorp								
Mine: Des Bee Dove Mine Permit Number: C015/017								
Title: Response to Deficiencies in the Des Bee Dove Mine, Phase 2 Reclamation Plan, PacifiCorp, Des Bee Dove								
Mine, C015/017-AM01D-1, Emery County, Utah								
Description , Include reason for application and timing required to implement:								
Revise Reclamation Plan; Will implement reclamation upon approval								
Revise Reclamation 1 lant, with implement reclamation apon approval								
Instructions: If you answer yes to any of the first eight (gray) questions, this application may require Public Notice publication.								
Yes No 1. Change in the size of the Permit Area? Acres: Disturbed Area: increase decrease.								
Yes No 2. Is the application submitted as a result of a Division Order? DO#								
Yes No 3. Does the application include operations outside a previously identified Cumulative Hydrologic Impact Area?								
Yes No 4. Does the application include operations in hydrologic basins other than as currently approved?								
Yes No 5. Does the application result from cancellation, reduction or increase of insurance or reclamation bond?								
Yes No 6. Does the application require or include public notice publication?								
Yes No 7. Does the application require or include ownership, control, right-of-entry, or compliance information?								
Yes No 8. Is proposed activity within 100 feet of a public road or cemetery or 300 feet of an occupied dwelling?								
Yes No 9. Is the application submitted as a result of a Violation? NOV #								
Yes No 10. Is the application submitted as a result of other laws or regulations or policies? Explain:								
Yes No 11. Does the application affect the surface landowner or change the post mining land use?								
Yes No 12. Does the application require or include underground design or mine sequence and timing? (Modification of R2P2)								
Yes No 13. Does the application require or include collection and reporting of any baseline information?								
Yes No 14. Could the application have any effect on wildlife or vegetation outside the current disturbed area?								
Yes No 15. Does the application require or include soil removal, storage or placement?								
Yes No 16. Does the application require or include vegetation monitoring, removal or revegetation activities?								
Yes No 17. Does the application require or include construction, modification, or removal of surface facilities?								
Yes No 18. Does the application require or include water monitoring, sediment or drainage control measures?								
Yes No 19. Does the application require or include certified designs, maps or calculation?								
Yes No 20. Does the application require or include subsidence control or monitoring?								
Yes No 21. Have reclamation costs for bonding been provided?								
Yes No 22. Does the application involve a perennial stream, a stream buffer zone or discharges to a stream?								
Yes No 23. Does the application affect permits issued by other agencies or permits issued to other entities?								
Please attach four (4) review copies of the application. If the mine is on or adjacent to Forest Service land please submit five								
(5) copies, thank you. (These numbers include a copy for the Price Field Office)								
I hereby certify that I am a responsible official of the applicant and that the information contained in this application is true and correct to the best of my information and belief in all respects with the laws of Utah in reference to commitments, undertakings, and obligations, herein.								
()() () () ()								
Charles A. Semborski Print Name Charles A. Semborski Sign Name, Position, Date Charles A. Semborski Sign Name, Position, Date								
Subscribed and sworn to before me this The day of october, 2002 DON CHILDS								
NOTARY PUBLIC STATE OF UTAH								
Notary Public 31 NORTH MAIN								
My commission Expires: 15, 2004}								
Attest: State of Stat								
County of EUNERY.								

APPLICATION FOR COAL PERMIT PROTESSING Detailed Schedule Of Changes to the Mining And Reclamation Plan

Permit	Permittee: PacifiCorp								
Mine:	Des Bee Dove	Mine	Permit Number: C/015/017						
Title:	Response to Deficiencies in the Des Bee Dove Mine, Phase 2 Reclamation Plan, PacifiCorp, Des Bee Dove								
Mine, C/015/017-AM01D-1, Emery County, Utah									
Provide a detailed listing of all changes to the Mining and Reclamation Plan, which is required as a result of this proposed permit application. Individually list all maps and drawings that are added, replaced, or removed from the plan. Include changes to the table of contents, section of the plan, or other information as needed to specifically locate, identify and revise the existing Mining and Reclamation Plan. Include page, section and drawing number as part of the description.									
			DESCRIPTION OF MAP, TEXT, OR MATERIAL TO BE CHANGED						
Add Add	Replace	☐ Remove	Appendix XV, Phase 2 Reclamation Plan, R645-301-100: General Contents, TOC						
Add	Replace	Remove	Appendix XV, Phase 2 Reclamation Plan, R645-301-200: Soils, Entire Test Section (Including Appendix A Cover), Appendix A, Map 200-1						
☐ Add	□ Replace	Remove	Appendix XV, Phase 2 Reclamation Plan, R645-301-300: Biology, Entire Text Section (Including Appendix A Cover)						
☐ Add	Replace	Remove	Appendix XV, Phase 2 Reclamation Plan, R645-301-400: Land Use & Air Quality, Entire Text Section (Including Appendix A Cover)						
Add	Replace	Remove	Appendix XV, Phase 2 Reclamation Plan, R645-301-500: Engineering, TOC (2nd page), Page 4, Appendix Covers (Map Section, Appendix A, Appendix B)						
Add	Replace	Remove	Appendix XV, Phase 2 Reclamation Plan, R645-301-600: Geology, TOC, Appendix A Cover						
Add	Replace	Remove	Appendix XV, Phase 2 Reclamation Plan, R645-301-700: Hydrology, TOC (5 pages), Appendix A Cover						
Add Add	Replace	Remove	Appendix XV, Phase 2 Reclamation Plan, Special Insert						
Add Add	□ Replace	Remove	Volume 2, Part 4, Special Insert						
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